

# Aortic diverticulum without vascular ring: A rare cause of dysphagia

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In an adult with severe dysphagia, diagnosis of aneurysmal aberrant subclavian artery was suspected on computed tomogram; no vascular ring was visible on arteriogram. A diverticulum of the aortic isthmus was surgically resected. Histologic analysis ruled out acquired disease. In conclusion, dysphagia related to esophageal compression may be caused by an isolated congenital aortic diverticulum. (*J Vasc Surg* 1997;26:142-3.)

## CASE REPORT

A 45-year-old woman sought medical attention in January 1995 with severe dysphagia, mild dyspnea, and chest pain. The initial diagnosis by computed tomographic scan was right-sided aortic arch and partial vascular ring (aberrant left subclavian artery with aneurysmal dilatation). The patient was referred to our institution in February 1996 with worsening symptoms and weight loss. Esophagography (Fig. 1), magnetic resonance imaging, and arteriography of the thoracic aorta and supraaortic trunks were performed and revealed a sacular aneurysm of the distal right-sided aortic arch ( $3 \times 2$  cm), giving rise to esophageal compression posteriorly and tracheal deviation; no vascular ring (partial or complete) was detected.

Despite the controversial diagnosis, operation was indicated because of the severity of the symptoms. Through a right posterolateral thoracotomy in the fourth intercostal space, the aortic arch and descending aorta were dissected. A 3 cm-diameter diverticulum that originated at the aortic isthmus and extended posteriorly for 6.5 cm was isolated. Because of the thin wall and the presence of adhesions to the compressed esophagus, the diverticulum was not completely mobilized from the adjacent structures. With side-biting aortic clamping, the diverticulum was divided at its origin from the aorta; the defect



**Fig. 1.** A right-sided esophagogram shows the almost complete obstruction due to external compression.

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was closed by direct suture. Histologic evaluation ruled out degenerative disease compatible with acquired aneurysm formation.

Vascular rings, whether associated with a Kommerell diverticulum or not, are rare causes of dysphagia as a result of esophageal compression. To our knowledge, this is first case of dysphagia related to an isolated aortic diverticulum.

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